

**SUGGESTIONS FOR DEALERSHIP DEVELOPMENT TO SUIT NEEDS OF A
NEW KIND OF JOHN DEERE CUSTOMER: A STUDY OF “LARGE
PROPERTY OWNERS” AND THEIR PREFERENCES**

A Thesis

by

MARIA ALEXANDROVNA POSPESHNOVA

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

May 2006

Major Subject: Agricultural Education

**SUGGESTIONS FOR DEALERSHIP DEVELOPMENT TO SUIT NEEDS OF A
NEW KIND OF JOHN DEERE CUSTOMER: A STUDY OF “LARGE
PROPERTY OWNERS” AND THEIR PREFERENCES**

A Thesis

by

MARIA ALEXANDROVNA POSPESHNOVA

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Approved by:

Chair of Committee,	Gary Briers
Committee Members,	Andy Vestal
	Larry Dooley
Head of Department,	Christine Townsend

May 2006

Major Subject: Agricultural Education

ABSTRACT

Suggestions for Dealership Development to Suit Needs of a New Kind of John Deere Customer: A Study of “Large Property Owners” and Their Preferences. (May 2006)

Maria Alexandrovna Pospeshnova, Engineer-Specialist,

Moscow State Agroengineering University

Chair of Advisory Committee: Dr. Gary Briers

The purpose of this study was to identify a new group of customers of agricultural machinery manufacturers and these customers’ needs and suggestions. The study also sought to offer suggestions to the John Deere Company for dealership education and development programs for John Deere dealerships. The following objectives were used to guide the study:

- 1) To describe demographics of “large property owners,”
- 2) To describe “large property owners”’ needs and wants for the farm equipment dealership, and
- 3) To generate suggestions for dealership development to suit the needs of “large property owners.”

The need for the study was identified by the John Deere Company to learn more about a new growing market and to prepare the dealerships for adoption of the change. The sampling frame consisted of “large property owners” whose names were randomly selected from county tax rolls of six selected counties in the Dallas/Fort Worth

metropolitan area. A mailed instrument was sent to a sample of 1,000 potential participants. Respondents totaled 205, with 174 instruments usable as they were complete or nearly complete.

The study revealed important facts about “large property owners,” which were considered while creating a list of recommendations for the John Deere Company.

Before “large property owners’” needs could be examined, the John Deere dealerships had to be considered. Two kinds of dealerships can present agricultural equipment of different powers at two different locations: agricultural equipment dealerships and Commercial and Consumer Equipment (C&CE) dealerships.

Presenting equipment in two different locations may not suit small farmers’ needs or their desire for convenience. “Large property owners’” needs in a wider range of equipment at one dealership location, more convenient locations, and other characteristics were examined.

DEDICATION

To my best friend and the most wonderful mother in the world! Thank you for supporting me at any time and letting me pursue my goals and dreams!

To my loving and kind grandmother “babushka” who is always there for me!

To my great American friends who have been always with me and my family helping get through the bad times, who shared their lives and families with me. They showed me better and more opportunities in my life and helped me approach them. I thank you Billie, Roger, Gary, Skip, Jody and others for offering me so much love and support!

To so many other American people who helped me! I am proud to have the opportunity to enjoy your beautiful country and to meet so many wonderful people here! I will remember and thank “my Americans” forever!

Thank you God for showing me the path to follow! Thank you for watching after me! Thank you for putting so many great people on my way!

ACKNOWLEDGMENTS

There are so many people I would like to thank for all of the support and help they offered me on the way of getting my Master's degree in a major American university. But first of all I would like to thank Dr. Gary Briers. He has been a great teacher and a friend for several years in any part of the world. Without his support and guidance I would not be able to experience and learn so much in my life! Thank you for giving me the opportunity to possess such a valuable gift as two years in Texas A&M University.

Thank you my dear committee members, Dr. Andy Vestal and Dr. Larry Dooley, for your help, support, and patience. I am very proud to have a chance to learn from you!

I also would like to thank Dr. Joe Townsend and Dr. Chris Townsend for being great supporters and friends. I wish people would treat you as wonderful as you treat me. I am going to be happy to pass on the love and kindness you taught me.

There are many other people who I will remember and thank the rest of my life. They are Dr. Tim Murphy, Dr. Kim Dooley, Dr. James Lindner, and others.

TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
DEDICATION.....	v
ACKNOWLEDGMENTS.....	vi
TABLE OF CONTENTS.....	vii
LIST OF TABLES.....	ix
LIST OF FIGURES.....	xi
 CHAPTER	
I INTRODUCTION.....	1
Purpose and Objectives.....	3
Research Questions.....	3
Significance of the Study.....	4
Delimitations.....	4
Summary.....	5
 II REVIEW OF LITERATURE.....	 6
Agricultural Mechanization Effects.....	6
Small Farm Growth.....	7
“Large Property Owners”.....	8
John Deere Company and “Large Property Owners”.....	9
John Deere Dealerships.....	10
Customer Satisfaction.....	11
Needs Assessment.....	13
Summary.....	14
 III METHODOLOGY.....	 16
Population and Sample.....	16
Instrumentation.....	17
Data Collection Procedures	18
Survey Package and Mailing Details.....	19

CHAPTER		Page
	Data Analysis.....	20
IV	MAJOR FINDINGS.....	22
	Introduction.....	22
	Survey Response Rate.....	22
	Demographic Characteristics of the Sample.....	23
	Demographic Data – Research Objective 1.....	23
	“Large Property Owners”” Needs and Wants –	
	Research Objective 2.....	27
	Relationships Between Variables.....	38
	Suggestions for Dealership Development-Research	
	Objective 3 Summary.....	41
V	SUMMARY, CONCLUSIONS, IMPLICATIONS AND	
	RECOMMENDATIONS.....	47
	Summary.....	47
	Conclusions.....	49
	Implications.....	51
	Recommendations.....	52
	REFERENCES.....	54
	APPENDIX A.....	56
	APPENDIX B.....	59
	APPENDIX C.....	63
	APPENDIX D.....	68
	VITA.....	71

LIST OF TABLES

	Page
Table 1. Age Ranges of “Large Property Owners” 2005 (n=172).....	24
Table 2. Description of Area of Residence of “Large Property Owners” 2005 (n=170).....	24
Table 3. Current Occupations of “Large Property Owners” 2005 (n=173).....	25
Table 4. Years of Experience in Agriculture of “Large Property Owners” 2005 (n=163).....	26
Table 5. Brands of Equipment Used by “Large Property Owners” 2005 (n=163).....	27
Table 6. Stores Where “Large Property Owners” Buy Parts/Maintenance For Their Equipment 2005 (n=174).....	28
Table 7. Store Characteristics That Attracted “Large Property Owners” to the Current Place They Purchase Their Equipment/Service 2005 (n=174).....	28
Table 8. Importance of a Wider Range of Equipment at One Location (Heavy Duty Agricultural Combined with Light Duty Gardening Equipment) 2005 (n=163).....	29
Table 9. Importance of the Distance “Large Property Owners” Have to Travel to the Closest Dealership Location 2005 (n=163).....	29
Table 10. Importance of Visibility of a Dealership Building/Location on a Site (Easy to Spot) 2005 (n=161).....	30
Table 11. Importance of Dealership Building Accessibility (Rail Road Crossings, Complex Road Intersections, etc.) 2005 (n=161).....	31
Table 12. Importance of a Dealership Building Located Closer to the Downtown of a City or in the Country 2005 (n=161).....	32
Table 13. Importance of a Dealership Located Close to the Other Important/Useful Sites and Shopping Areas 2005 (n=159).....	32
Table 14. Other Important Businesses/Stores to be Close to a Dealership Location as Perceived by “Large Property Owners” 2005	33

	Page
Table 15. Number of Respondents, Mean, and Standard Deviation of the Results on Questions About the Characteristics of a Dealership According to “Large Property Owners” 2005.....	34
Table 16. Mean and Standard Deviation for the Miles and Minutes “Large Property Owners” are Willing to Travel to the Closest Dealership Location 2005.....	34
Table 17. Comments and Suggestions of “Large Property Owners” Towards Improvement of the Farm Equipment Dealership Services 2005.....	36
Table 18. Correlation Coefficients (Spearman’s Rho) of Age and Residence Area, Occupation, Years of Experience in Agriculture 2005.....	39
Table 19. Correlation Coefficients (Spearman’s Rho) of Residence area, Occupation, Years of Experience in Agriculture 2005.....	40
Table 20. Correlation Coefficients (Spearman’s Rho) of Age and Distance, Visibility, Accessibility, Location, Other Stores 2005.....	40
Table 21. Correlation Coefficients (Spearman’s Rho) of Age and Miles, Minutes 2005.....	41

LIST OF FIGURES

FIGURE	Page
1. Histogram of the miles “large property owners” are willing to travel to the closest dealership location.....	35
2. Histogram of the minutes “large property owners” are willing to travel to the closest dealership location.....	35

CHAPTER I

INTRODUCTION

Agricultural technology evolved tremendously throughout the 20th century. Manual labor shifted to machine labor letting people move to the cities. Beginning in 1920, rural population in the United States went into a steady, stable decline (Eilers, 1999). And, even as the population of the nation increased dramatically through the century, only in the 1990s did rural population increase.

Now, in the beginning of the 21st century, the tendency of people moving to the rural areas continues. Numbers of farms are increasing in many cases due primarily to the growing numbers of small acreage farms. According to the agricultural census of 1997, 30% of all farms are represented by areas of less than 50 acres. It has been reported that the main occupation of about half of all farm operators is not farming (Eilers, 1999). The trend of small farms to increase in number can be observed also through the sales of small tractors. Small tractors experienced a growth in sales during the 1990s, and sales continue to rise (Yengst, 2000).

Small farmers, or “large property owners,” are represented by rural residential landowners who are more interested in lifestyle than in profit. They are professionals, doctors, lawyers, dentists, publishers, and consultants who choose a rural lifestyle because they enjoy it and can afford it (Erickson, 2004).

Many of these people do not have enough experience to fully enjoy

This thesis follows the style and format of the *Journal of Agricultural Education*.

their rural life. They are looking for information; they seek expertise, convenience, and more flexible schedules. It is important that equipment manufacturers and their dealers realize that small farmers have different goals than do traditional farmers. To meet the needs and desires of this new rapidly growing market, equipment manufacturers need to take several steps: research the group, identify its qualities, characteristics, and needs, and apply this information in dealer development activities (Erickson, 2004).

John Deere Company is one of the biggest and oldest equipment manufacturers in the World. The Company's equipment, which can be used for agricultural purposes, is represented by two kinds of dealerships: agricultural equipment (tractors, hay balers, etc.) dealerships and Commercial and Consumer Equipment (lawnmowers, etc.) (C&CE) dealerships. Agricultural dealerships, which carry heavy and light duty agricultural equipment and are also allowed to carry C&C Equipment, may not always present a full range of the latter. C&CE dealerships can carry only lighter duty equipment. Presenting equipment in two different locations may not suit small farmers' needs or their desire for convenience. Due to this change in markets and in needs of potential customers, there is a need to investigate the interests, needs, and desires of small farmers and, based on those findings, to propose adjustments in agricultural (to some extent) and C&C Equipment (to a large extent) dealerships.

Purpose and Objectives

The purpose of this study was to assess the needs of potential new customers and, based on their needs, to suggest means for adjustment of existing or new John Deere dealerships to better serve those needs and lead to greater satisfaction of small farmers.

The following objectives were used to guide the study:

- 1) To define and describe “large property owners” around a major metropolitan area in Texas;
- 2) To evaluate “large property owner” needs and wants for the farm equipment dealerships;
- 3) To examine relationships between selected characteristics of “large property owners” and their needs and wants for products and services; and
- 4) To generate suggestions for new dealership development (at any location) to suit identified needs of “large property owners.”

Research Questions

The study was designed to answer the following questions:

1. What defines “large property owner” in terms of their characteristics?
2. How satisfied are “large property owners” with the present services offered by equipment manufacturers and their dealerships?
3. What are the characteristics of a good dealership as perceived by “large property owners”?

4. How are the characteristics of “large property owners” and their perceptions of qualities of good dealerships related?

Significance of the Study

John Deere Company is interested in capturing a significant part of the new market of “large property owners.” Though there has been very little research investigating the new market segment, the John Deere marketing branch in Dallas believes that the company can satisfy “large property owners” needs for equipment and service. This study’s findings will provide useful and important information about small farmers in whom the Company is interested. Understanding customers’ needs and wishes, John Deere’s marketing branch will be able to adjust existing beliefs about dealership organization and services. Yet, more research will be necessary to suit all the needs and raise customer satisfaction.

Delimitations

This study was subjected to the following delimitations:

1. The study was delimited to 1,000 randomly selected potential “large property owners” in six counties of the Dallas/Fort Worth metroplex.
2. The study was delimited to data collected in a random sample during October and November, 2005.

Summary

Rural population has been growing recently which led to an increased number of small farms. This change has created a new, big market segment for agricultural machinery manufacturers. Newly-appearing customers have a lot of distinct features compared to the usual customers; these new customers require a different approach than that used with traditional customers. To successfully stay in the market and raise customer satisfaction, equipment manufacturers are forced to study the market and teach their representatives – dealerships – how to adjust to the changes and how to provide required services, some of which are informational and others of which are educational.

CHAPTER II

REVIEW OF LITERATURE

Rural population growth since the 1990s and urban population with higher incomes have contributed to an increase in the number of small farms. In turn, small farms caused increases in small agricultural equipment sales (Eilers, 1999; Yengst, 2000; Erickson, 2004). Yet, there are several questions of concern to be examined before full satisfaction in this relationship is reached. One of them is consumer satisfaction with the present services offered by the dealers of agricultural machinery manufacturers. Dealerships' extended range of equipment, longer hours, location, etc., are those characteristics believed to help raise customer satisfaction and ensure a company's reputation and prosperity.

John Deere Company has been a leader in agricultural equipment manufacturing and customer satisfaction for 137 years. It is one of the oldest industrial companies in the United States. The company believes it can satisfy small farmers' needs with appropriate equipment and excellent service. John Deere's marketing branch in Dallas was interested in gathering information concerning the new growing market with the purpose to teach area dealerships new ways of customer satisfaction.

Agricultural Mechanization Effects

During the industrial revolution agricultural mechanization brought labor displacement; as agricultural operations were mechanized, the total amount of people occupied in agriculture decreased, diminishing the number of hired farm workers,

seasonally hired farm workers, and family farm workers. Certainly, this greatly affected the amount and sizes of farms maintaining operation. People were forced to move to the cities for other occupations. Some decided to go to college, pursue careers in a variety of professions, and, eventually, help advance our lives in ways other than farming.

Mechanization of agriculture in the United States has been recognized as a major factor of social and economic change in rural areas. Labor automation and changes in occupational composition of the population caused such indirect consequences as a shift in values, life styles, and farm skills (Berardi & Geisler, 1984).

Small Farm Growth

According to the United States Department of Agriculture, rural population went into stable decline beginning in 1920 and continued for 70 years, up to 1990. This tendency began to reverse in the early 1990s. From 1990 to 1992, a total of 337,000 people returned to rural areas, and 64 percent of the nation's rural counties reported population increases (Eilers, 1999).

The 1997 USDA agriculture census showed the trend of people moving back to rural areas continued. In 2000, USDA said that the number of farms in the USA had grown to 2,194,070 covering almost 950 million acres, up for the third year in a row because of the growing number—15,690 more—of small acreage farms. The 1997 USDA agriculture census stated that the main occupation of about half of all US farm operators was not farming. It also reported that 30 percent of the US's 1,911, 859 farms were less

than 50 acres, and about 61 percent were less than 180 acres (Eilers, 1999; Nation in Brief, 2000).

The trend for small farms to grow can also be observed through small tractor sales (under 80 horsepower). In 1999, small tractors accounted for over half of the market of all tractors. According to Equipment Manufacturer Institute reports, small tractors had sales growth during the 1990s, rising from about 40,500 units in 1993 to nearly 77,600 units in 1999, up nearly 92 percent. “Looking at the next few years, I would put sales of small tractors between 90,000 and 95,000 units in 2001” (Yengst, 2000, *An emerging market*, ¶3).

“Large Property Owners”

Cell phones and Internet allow today’s worker to be available any time, so work out of office can be available and productive. Highways and interstates connect metropolitan areas with what used to be outlying small country towns. Long distance is not an obstacle any more due to sophisticated technology: computers, Internet, satellites, etc. All of these combined to allow growth of the rural population, the number of small farms, and the number of “large property owners.”

Most of the time, “large property owners,” the owners of small acreage farms, are rural residential landowners, who are more interested in lifestyle than in profit. “In many cases these are professionals, doctors, lawyers, dentists, publishers, and consultants who want to live outside the suburbs and metro areas. They value privacy, independence, and open spaces which are so hard to find today in urban neighborhoods.

They are living on that rural area because they chose it and want it and can afford the lifestyle” (Erickson, 2004, An emerging market, ¶4).

These new farmers are called different names: small farmers, weekenders, large property owners, etc. It is important that equipment manufacturers and their dealers realize that small farmers have different goals than traditional farmers. “Kavanaugh insists that to successfully service this group, good locations and good salespeople are critical” (Erickson, 2004, Ruralpolitan demands, ¶4). This segment of the market requires more from salespeople: better marketing and communication skills. While some urban lifestyle people move to the country, they do not have the background to fully enjoy it; they do not know enough about what they need. They seek out expertise, convenience, and more flexible schedules. “The ruralpolitan is very hungry for information,” Gottsch, RFD-TV president, says. (Erickson, 2004, Reaching ruralpolitans over the airways, ¶8).

John Deere Company and “Large Property Owners”

John Deere Company has been monitoring and studying the growing market of “large property owners.” Gustafson, manager for advertising/creative for John Deere, agrees with the fact that ruralpolitans think differently than those in traditional agricultural markets. “John Deere realized that this group was not going out of its way to go to a John Deere dealer. They were shopping at Sears or Lowe’s or Home Depot and saying, ‘Oh, by the way, I also need a lawn mower.’” (Erickson, 2004, New avenues for the new market, ¶1). This shifted John Deere thinking. They initiated lawn

tractor sales in Home Depot. “For years, our ag division and our consumer and commercial equipment (CCE) division did not interact on any plane. That has changed” (Erickson, 2004, New avenues for the new market, ¶2). Finally, some Home Depot customers started asking John Deere for something bigger and for referral to the appropriate dealers. Gustafson is very optimistic about the opportunities “large property owners” offer to the company.

John Deere Dealerships

Erickson (2004, Ruralopolitan demands, ¶4) stated that “Kavanaugh insists that to successfully service this group, good locations and good salespeople are critical.” This segment of the market requires more from salespeople: better marketing and communication skills. Servicing new market is getting difficult for dealerships and distributors. They are trying to adjust to the changes to survive (McMahon, 2000). “As the rural lifestyle segment grows, ag companies will continue to search for new ways to meet the needs and demands of this new market” (Erickson, 2004, Exciting times, ¶1).

John Deere equipment, used for agricultural purposes, is represented by two kinds of dealerships: agricultural equipment (tractors, balers, etc.) dealerships and commercial and consumer equipment (lawnmowers, etc.) C&CE dealerships. Agricultural dealerships, which carry heavy and light duty agricultural equipment and are also allowed to carry C&C Equipment, may not always present the full range of it. C&CE dealerships are limited to small equipment. This presents a great inconvenience and decreases educational capacity of a dealership for small farmers. “The study needs

to encompass both the AG and CCE divisions, and include tractors from 15 to 70-horse power” (John Deere Company, n.d., p. 1).

From conversations with representatives of the John Deere marketing branch in Dallas, it became apparent that the Company is interested in the investigation of small farmers’ ideas and beliefs about dealerships’ range of equipment, locations, and services.

Customer Satisfaction

As it was said above, “large property owners” have different goals than traditional farmers and are represented mostly by people holding executive and high-paying positions. Therefore, they need slightly different service from salespeople who are a little more educated or trained in marketing and customer relations (Erickson, 2004). Apparently, one of the keys to attract a big segment of the new market is to improve customer satisfaction.

What is quality customer service? It can be defined as expectations 1) that the product will produce the benefits promised and 2) that the service will be on the promised level. Good customer relations is the agreement between two economic entities which is equally satisfying for both parties and is carried on for an extended period of time (Dunckel, & Taylor, 1988).

Customer service is not a one time sale that begins when the customer sees or hears about the product, communicates with the salesperson, and buys the product. It must continue after the sale is made and last until the next sale.

It is very easy to get focused on product, price, packaging, and promotion and forget about the service (Gross, 2005). If employees place value on the service, it results in profit. To offer service that has value, service must be considered a product. This product is sold every time a salesperson has contact with a customer. One should remember that it is extremely important to proceed with what is written on paper, to live up to promises made because it takes a lot of energy and initiative (Dunckel, & Taylor, 1988; Gross, 2005).

While setting a value on customer service, one should first realize that customers are self-centered. They come to the store to solve their problem and not somebody else's. Return buyers come from supplying products that solve problems and from offering service that satisfies customers at all times. While talking with a customer, it is also important to remember that more than 50 percent of customers rely on the opinions of their friends (Dunckel, & Taylor, 1988).

Good customer relations begin with good employee relations. Being able to communicate effectively with employees can help achieve effective communication of employees with customers. If a new customer relations program is to be implemented successfully, employees are to have specific training. Staff-development programs are actively supported when they are effectively developed, well planned, proficiently managed, and systematically evaluated (Dunckel, & Taylor, 1988; Orlich, 1989). *The Customer Service Activity Book: 50 Activities for Inspiring Exceptional Service* (Doane & Sloat, 2005) is recommended for the instruction/training preparation.

If a company wants to maintain its status in the market and go forward with progress, it must have procedures for collecting and evaluating the necessary information about customer needs, wants, buying habits, and usage examples and for communicating that information to those in the company who can utilize it to design, develop, create, and deliver greater customer service (Webster, 1994).

Needs Assessment

One of the goals of this study is to solicit public opinion about community problems (small farmers' satisfaction with the present farm equipment dealership services) and receive ideas for possible solution. For this purpose, a needs assessment survey is used (Dillman, & Salant, 1994).

Needs assessment or needs analysis is one of the basic elements of human resource development, an important step in the performance advancement of business. It is a process for analyzing reasons for failures or gaps in performance or a technique for recognizing new and future performance needs. Conventionally, needs assessment has been deficiency oriented, intended to discover and address existing deficiencies in performance. Data gathering is the foundation for any needs assessment project. Reliable and legitimate information is necessary, and the process of information gathering should be considered. Eventually, information will be used to establish the course of action. Information is of significance only if it leads to a better choice than would have been made without it (McKillip, & Pitz, 1984; Gupta, 1999; Phillips, & Holton, 1995).

Needs assessment traditionally has been focused on three levels of analysis: 1) analysis of the organization to verify what results are not occurring but expected, and what organizational features prevent from receiving the expected results; 2) analysis of the tasks to determine what performance should take place; and 3) study of individuals for need in additional training (Phillips, & Holton, 1995).

According to Phillips and Holton (1995), there are four results of needs assessments possible: new information, priorities, management buy-in, and recommended solutions.

Summary

The review of literature proves that the small farm market is growing rapidly. Very often it is represented by “large property owners,” people who choose farming as a lifestyle and who can afford to have several acres and use several pieces of light duty agricultural equipment to enjoy their free time. “Large property owners” have different goals and characteristics than do traditional farmers. This is an important matter for agricultural equipment manufacturers and their dealers to consider if they want to successfully operate in this market. Before any major decisions can be made and before a human resource development program can be designed, data should be gathered and analyzed.

A question of new market expansion is very crucial for any agricultural equipment manufacturer and its dealer. And, as in any change, time for adoption of this change, adjusting to new environment, needs, etc. will be required. This study sought to

answer some of the questions raised and to contribute to dealership development to satisfy needs of small farmers.

CHAPTER III

METHODOLOGY

The main purpose of this study was to learn more about “large property owners” and their needs and wants in terms of farm equipment dealerships and to apply received information in dealership development activities. Study objectives included: 1) learning more about “large property owners” demographics, 2) learning more about “large property owners” needs and wants for the farm equipment dealerships, and 3) offering suggestions for new dealership development (at any location) to suit needs of “large property owners.” A needs assessment was used to achieve these objectives.

Population and Sample

The target population for this study consisted of small farmers in six selected counties of the Dallas/Fort Worth area metroplex. The counties were Collin, Denton, Tarrant, Wise, Johnson, and Ellis. The population consisted of “large property owners”—operationalized as those who possessed three to fifty (3-50) acres of land. The frame of “large property owners” was developed from county property tax rolls. Assistance of a local real estate agent was needed to access this information. Tax rolls do not always specify land zoning. Therefore, it was taken into consideration that the frame might have been a little compromised with property owners whose land was zoned as commercial. A random list of the names of 1,000 “large property owners” (3-50 acres of land) was created using county property tax rolls.

Instrumentation

The survey instrument focused on two major themes that corresponded to the first and second objectives of the study. The themes contained “large property owner” demographics information and “large property owner” needs and wants concerning farm equipment dealerships. The personal variables illustrated personal demographics, location demographics, occupation demographics, and technology demographics. The operational variables illustrated equipment range, distance to the closest dealership, and dealership location characteristics. The questionnaire also included free space for suggestions, ideas, comments, and concerns.

The instrument consisted of several types of questions. Seven demographic questions offered several response choices, and each participant had to mark the corresponding answer. The next set of the questions consisted of “forced-response” items constituting one of the most commonly used response continua developed by Rensis Likert, the Likert scale (Orlich, 1989). Such scales are usually used for assessing opinions and, most of the time, consist of five or more response categories. A research participant is required to select only one category (Orlich, 1978). The possible responses consisted of five choices, e.g., very important, important, not relative, unimportant, very unimportant. The last question was an open-ended question where potential “large property owners” were asked to write down their suggestions, comments, ideas, etc. A copy of the research instrument can be found in Appendix B. The survey instrument questions were evaluated by representatives from John Deere Company branch in Dallas

and professors in agricultural education for content, quality, and pertinence to the “large property owners” topic.

Data Collection Procedures

One round of mailings was undertaken; stamped return envelopes were mailed to 1,000 potential small farmers. A consent form and a cover letter were attached to the questionnaire to briefly explain the research purpose, objectives, and rules. No follow up of non-respondents was possible because responses were anonymous. “Mail surveys, especially when a survey is to be done locally, can provide a sense of privacy less sensitive to biases introduced to interviewers as well as to the tendency for respondents to give answers they think the interviewer wants to hear” (Dillman, & Salant, 1994, p. 36). Subjects’ ages ranged from 18 to 75 years old and included both male and female members. Participants' names were placed only on the envelopes. The original list of names of potential participants was destroyed as research was completed. Responses were anonymous to the research team.

As it was said above, the return envelopes did not have names of the senders, so the research was anonymous. Therefore, follow-up was not possible. Several potential participants who did not consider themselves to be “small farmers” returned their questionnaires undone or unfinished. Due to the mistakes caused by incomplete information in the county tax rolls, there was a significant number of returned but unfinished questionnaires.

Survey Package and Mailing Details

The surveys were printed in black ink on 8½ inch X 11 inch white paper which was folded twice to fit the envelopes. The addresses were printed in black ink on the stickers which were put on the envelopes, measuring 9½ X 4¼ inches. Borg and Gall (1989) suggested using colored ink or colored paper to make a questionnaire look more attractive. They also state that it is helpful to associate a study with a professional organization or institution which may be recognized by the research participants. The seal of Texas A&M University was printed in maroon on all cover letters accompanying each questionnaire. According to Dillman (1978), official seals help to gain more trust of a participant toward the researcher and establishes a more positive reputation of the researcher. Consent form was included in the packet to introduce potential “large property owners” to the Texas A&M University Institutional Review Board requirements and limitations for research. A copy of consent form can be found in Appendix A.

The cover letter was also included and served to provide research participants with information about the study and to give contact information. Every cover letter was signed by the researcher to demonstrate the researcher’s personal involvement and interest in the study. A copy of the cover letter is also provided in Appendix A.

One thousand surveys were mailed out by USPS 1st class. Participants were asked to return their information by a particular date. Two hundred five “large property owners” filled out and returned their surveys. Due to noncurrent data and mistakes in county property tax rolls, there were 31 returned unusable survey instruments. Nine

incomplete surveys were returned by potential participants for the reasons of retirement and death. So, the data sample of 17.4% (174 usable questionnaires) was considered adequate to conduct this study.

Data Analysis

“Raw data are usually converted to some quantitative form for analysis and display” (Orlich, 1978, p. 62). This conversion process is called scripting or coding. This I.D. coding is suggested because it is easier to classify a subject by numerical characters than by the subject’s real name, which consists of alphabetical characters (Borg, & Gall, 1989). In this research, the participants’ responses were coded by the date they were received. Received data were keyed into an Excel spreadsheet. Eventually, raw data were imported into SPSS 13.0 for data analysis. “The most commonly used set of computer programs in educational research is SPSS-X, which is an acronym for “Statistical Package for the Social Sciences, 2005.” SPSS-X is a comprehensive, integrated collection of computer programs for managing, analyzing, and displaying data” (Borg, & Gall, 1989, p. 848). After the data were entered and verified, frequencies, means, and standard deviations were used for the analysis. Several of the research participants chose not to answer one or more questions within the survey. Those unanswered questions were considered missing data.

In the presented research, relationships between a number of variables are of great interest to the research group. Correlational statistics are often used to discover the relationships between pairs of variables. A correlation coefficient serves to express the

degree of relationship between two variables in mathematical terms (Borg, & Gall, 1989). Correlation coefficients range from negative one to positive one, indicating negative or positive relationships between variables. The coefficient equals zero if there is no relationship.

CHAPTER IV

MAJOR FINDINGS

Introduction

The purpose of this chapter is to present the findings of the research designed to identify demographics of “large property owners” and to identify their wants and needs for the farm equipment dealerships. Response data are discussed and response frequencies are presented below. More statistical analyses such as correlations to portray relationships between the variables are offered and discussed further.

Survey Response Rate

Survey instruments were sent to 1,000 people identified as “large property owners.” Two hundred five surveys were returned to the researcher. The overall response rate was 20.5%. Of these 205 returned surveys, 174 (17.4%) were utilizable since they were complete or nearly complete. Unanswered questions on the “nearly complete” instruments were coded as missing data. The response rate was considered to be enough to conduct the survey analysis. As it was written earlier, the names of the potential small farmers were randomly selected from the county tax rolls of the six counties of the Dallas/Fort Worth metroplex. Many of the returned surveys were blank and could not be used because of outdated/noncurrent (e.g., deceased owners) and unspecified information from the tax rolls.

Demographic Characteristics of the Sample

A study of demographics was performed to better understand “large property owners” and their needs and wants for farm equipment dealerships. The demographic attributes examined were ages of “large property owners,” the sizes of the towns/cities/areas in which they reside, their occupations, the number of years that they had been involved in agriculture, equipment brands being used, locations where equipment parts and maintenance were bought, and characteristics which attracted participants to the places where they purchased their equipment.

Demographic Data – Research Objective 1

The first demographic question considered was the research participants’ ages. Information on frequency of responses and percent of respondents can be found in Table 1. Data in Table 1 reveal that 51 (29%) of “large property owners” were above 65 years old, 50 (29%) of them were in the range between 45 and 55 years old, and 42 (24%) of the research participants were between 55 and 65 years of age. It is obvious that most of the individuals who participated in the study were above 45 years of age. They (participants above age 45) represented 82% of the valid responses.

Table 2 describes the residence areas of the research participants. The residence area with the highest frequency of responses was rural area with 85 responses. The second highest responses to the question were represented by the category of residence with less than 10,000 people and with 38 responses. Again, most of the “large property owners” (72%) reside in rural areas with populations below 10,000.

Table 1

Age Ranges of “Large Property Owners” 2005 (n=172)

Age ranges	<i>f</i>	%
< 25	1	0.6
25 – 35	3	1.7
35 – 45	25	14.4
45 – 55	50	28.7
55 – 65	42	24.1
>65	51	29.3
Total valid	172	98.9
Missing	2	1.1
Total	174	100.0

Table 2

Description of Area of Residence of “Large Property Owners” 2005 (n=170)

Residence/ population (people)	<i>f</i>	%
Rural area	85	48.9
< 10,000	38	21.8
10,000 – 25,000	16	9.2
25,000 – 10,000	16	9.2
100,000 – 500,000	5	2.9
>500,000	10	5.7
Total valid	170	97.7
Missing	4	2.3
Total	174	100.0

Another important demographic characteristic examined was the occupations of “large property owners.” Table 3 shows that 132 research participants, which is 76%, indicated that they had occupations other than farming. Twenty-three (13%) of them were farmers, 14 (8 %) were retired, and 4 (2%) were ranchers.

Table 3

Current Occupations of “Large Property Owners” 2005 (n=173)

Occupation	<i>f</i>	%
Farmer	23	13.2
Other	132	75.9
Retired	14	8.0
Rancher	4	2.3
Total valid	173	99.4
Missing	1	0.6
Total	174	100.0

Table 4 shows how many years that “large property owners” had been farmers, interested in agriculture, or using agricultural equipment. The responses were evenly distributed. Table 4 shows that 35 (20%) research participants have 25 - 35 years of experience in agriculture. A very close second and third were “large property owners” who had above 45 and 15 – 25 years of experience in agriculture, respectively.

Brands of equipment used by “large property owners” are presented in the Table 5. Originally, the survey offered several brands in the response field such, as Kubota, John Deere, Case/IH, Mahindra, and other. Several respondents, when marking “other”, specified that they have Ford, or New Holland, or Massey Ferguson. It should be

remembered that among those individuals who marked response “other” without any specifications might have been owners of either Ford, or New Holland, or Massey Ferguson. The category of equipment brand with the highest frequency of responses (61 and 35%) was “other”. The second highest responses (53 and 30%) represented John Deere, and the third, (19 and 11%), represented Kubota.

Table 4

Years of Experience in Agriculture of “Large Property Owners” 2005 (n=163)

Years in agriculture	<i>f</i>	%
< 5	26	14.9
5 – 15	25	14.4
15 – 25	31	17.8
25 – 35	35	20.1
35 – 45	14	8.0
>45	32	18.4
Total valid	163	93.7
Missing	11	6.3
Total	174	100.0

Table 5

Brands of Equipment Used by “Large Property Owners” 2005 (n=163)

Tractor brand	<i>f</i>	%
John Deere	53	30.5
Kubota	19	10.9
Case/IH	17	9.8
Ford	7	4.0
New Holland	3	1.7
Massey Ferguson	2	1.1
Mahindra	1	0.6
Other	61	35.1
Total valid	163	93.7
Missing	11	6.3
Total	174	100.0

“Large Property Owners” Needs and Wants – Research Objective 2

The second objective used to guide the study was to describe “large property owners” needs and wants for the farm equipment dealerships.

Table 6 illustrates “large property owners” preferences in stores where they buy parts/maintenance for their equipment. It should be noticed that one research participant could pick several responses to the question. Eighty-five (49%) individuals indicated that they buy parts in the same dealership at which they purchased their equipment. Farm store (69 and 40%) was the second most frequently chosen response. Following were another dealership (35 and 20%) and automotive store (24 and 14%).

Table 6

Stores Where “Large Property Owners” Buy Parts/Maintenance for Their Equipment 2005 (n=174)

Store description	<i>f</i>	%
Dealership where equipment was purchased	85	48.9
Another dealership	35	20.1
Farm store	69	39.7
Automotive store	24	13.8

Store characteristics which attracted “large property owners” and made them buy equipment/service are discussed in Table 7. Again, research participants could pick several responses to the question. According to the received results, equipment brand is the category which accumulated the highest response frequency – 63 and 36%. Location had the second highest rating with 59 responses and 34%. Other characteristics attracted 32 (18%) of potential small farmers.

Table 7

Store Characteristics That Attracted “Large Property Owners” to the Current Place They Purchase Their Equipment/Service 2005 (n=174)

Characteristics	<i>f</i>	%
Brand	63	36.2
Location	59	33.9
Service quality	24	13.8
Close parts store	14	0.8
Demonstration of products	5	2.9
Inventory of products to choose from	23	13.2
Other	32	18.4

Questions scaled with a Likert-type responses were used to receive the following information. Table 8 presents research participants' opinions on how important is the wider range of equipment (heavy and light duty) at one location. The highest response rate, with 54 responses and 31%, was in the category "not relative." Thirty-four percent of the respondents indicated that having a wider range of equipment at one location was unimportant or very unimportant. Only 29% thought it was important or very important.

Importance of distance to dealership location is discussed in Table 9. One hundred ten (63%) respondents thought distance to the dealership location was not an important factor. Overall, 19% of the "large property owners" decided that the distance to the dealership they can use was not of significant importance for them. And only 12% percent indicated this category to be important.

Table 8

Importance of a Wider Range of Equipment at one Location (Heavy Duty Agricultural Combined With Light Duty Gardening Equipment) 2005 (n=163)

Importance	<i>f</i>	%
Very unimportant	24	13.8
Unimportant	35	20.1
Not relative	54	31.0
Important	13	7.5
Very important	37	21.3
Total valid	163	93.7
Missing	11	6.3
Total	174	100.0

Table 9

Importance of the Distance “Large Property Owners” Have to Travel to the Closest Dealership Location 2005 (n=163)

Importance	<i>f</i>	%
Very unimportant	49	28.2
Unimportant	61	35.1
Not relative	33	19.0
Important	9	5.2
Very important	11	6.3
Total valid	163	93.7
Missing	11	6.3
Total	174	100.0

Table 10 shows how important it is for “large property owners” to be able to easily spot the dealership, that is, whether visibility is significant. The largest number of responses, 55 (32%), was in the category “not relative.” Thirty-six percent of the research participants thought that dealership building visibility was not important, and 25% percent agreed that it was important.

Table 10

Importance of Visibility of a Dealership Building/Location on a Site (Easy to Spot) 2005 (n=161)

Importance	<i>f</i>	%
Very unimportant	25	14.4
Unimportant	37	21.3
Not relative	55	31.6
Important	27	15.5
Very important	17	9.8
Total valid	161	92.5
Missing	13	7.5
Total	174	100.0

Is easy accessible dealership location important? Do complex road intersections, rail road crossings, etc. influence “large property owners” decisions to work with particular dealerships? Information answering these questions can be found in Table 11. Sixty-four (37%) research participants indicated that easy accessibility was not relative for them. Thirty-eight percent pointed out it was not important at all, and 18% thought it is important to work with the dealership that is easily accessible.

Table 11

Importance of Dealership Building Accessibility (Rail Road Crossings, Complex Road Intersections, etc.) 2005 (n=161)

Importance	<i>f</i>	%
Very unimportant	18	10.3
Unimportant	48	27.6
Not relative	64	36.8
Important	12	6.9
Very important	19	10.9
Total valid	161	92.5
Missing	13	7.5
Total	174	100.0

Table 12 shows the preferences of the research participants in a dealership location. Would they prefer for a dealership to be situated in the country outside of the city, or is it going to be easier for them to come downtown to purchase their equipment and parts? Forty-one percent of the respondents thought that location was not relative, but a very similar percentage, 39%, preferred a dealership they use to be in the country.

Table 12

Importance of a Dealership Building Located Closer to the Downtown of a City or in the Country 2005 (n=161)

Location	<i>f</i>	%
Downtown	2	1.1
Closer to downtown	19	10.9
Not relative	72	41.4
Close to the country	45	25.9
In the country	23	13.2
Total valid	161	92.5
Missing	13	7.5
Total	174	100.0

Table 13 illustrates whether “large property owners” would prefer for a dealership to be located close to other stores and important/useful sites. There are two highest response frequencies in this question: not relative and important; both of them constituted 36% of the responses.

Table 13

Importance of a Dealership Located Close to the Other Important/Useful Sites and Shopping Areas 2005 (n=159)

Importance	<i>f</i>	%
Very unimportant	10	5.7
Unimportant	23	13.2
Not relative	63	36.2
Important	33	19.0
Very important	30	17.2
Total valid	159	91.4
Missing	15	8.6
Total	174	100.0

Research participants were asked to indicate what stores, if any, they would like to see located close to a dealership they will go to. The results are presented in Table 14. “Home Improvement Stores” offered as a response to this question was the most popular one with 51% choosing that option. Thirty-one percent of the “large property owners” wanted to have Wal-Mart stores close to the dealership. Automobile repair shops were important to 17%. It should be noted that one research participant could choose several or all of the offered responses to the question.

Table 14

Other Important Businesses/Stores to be Close to a Dealership Location as Perceived by “Large Property Owners”

Business/store	<i>f</i>	%
Wal-Mart	53	30.5
Home Improvement Store	88	50.6
Automobile Repair Shops	29	16.7

Table 15 presents descriptive statistics for the above mentioned characteristics of a farm equipment dealership. The table also provides mean and standard deviation for each item. It is obvious that “large property owners” prefer a dealership to be located in the country (mean=3.42). Distance they have to travel to the closest dealership is also important (mean=2.21). Next most important category of the question is dealership building accessibility (mean=2.79).

Table 15

Number of Respondents, Mean, and Standard Deviation of the Results on Questions About the Characteristics of a Dealership According to “Large Property Owners” 2005

Characteristic	N	Minimum	Maximum	Mean	S. D.
Wider range of equipment (Table 8)	163	1	5	3.02	1.341
Distance to a dealership (Table 9)	163	1	5	2.21	1.141
Visibility of a dealership building (Table 10)	161	1	5	2.84	1.19
Dealership building accessibility (Table 11)	161	1	5	2.79	1.12
Dealership location (city/country) (Table 12)	161	1	5	3.42	0.92
Dealership proximity to other stores (Table 13)	159	1	5	3.31	1.131

Mean and standard deviation for the miles and minutes research participants are willing to travel to the closest dealership are presented in Table 16. The maximum miles and minutes “large property owners” will travel are 80 and 120 respectively. Mean for the miles is 25, and mean for the minutes is 34.

Table 16

Mean and Standard Deviation for the Miles and Minutes “Large Property Owners” are Willing to Travel to the Closest Dealership Location 2005

Distance	N	Minimum	Maximum	Mean	S. D.
Miles	152	1	80	25.03	13.62
Minutes	125	2	120	33.95	20.52

Figures 1 and 2 show the research participants' responses concerning how many miles and minutes they are willing to travel to the closest dealership location.

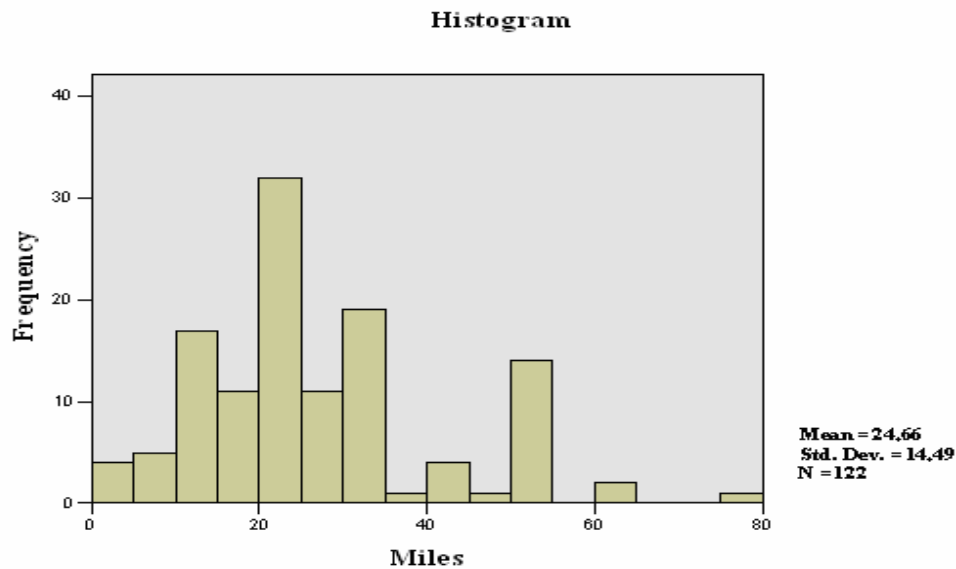


Figure 1. Histogram of the miles “large property owners” are willing to travel to the closest dealership location.

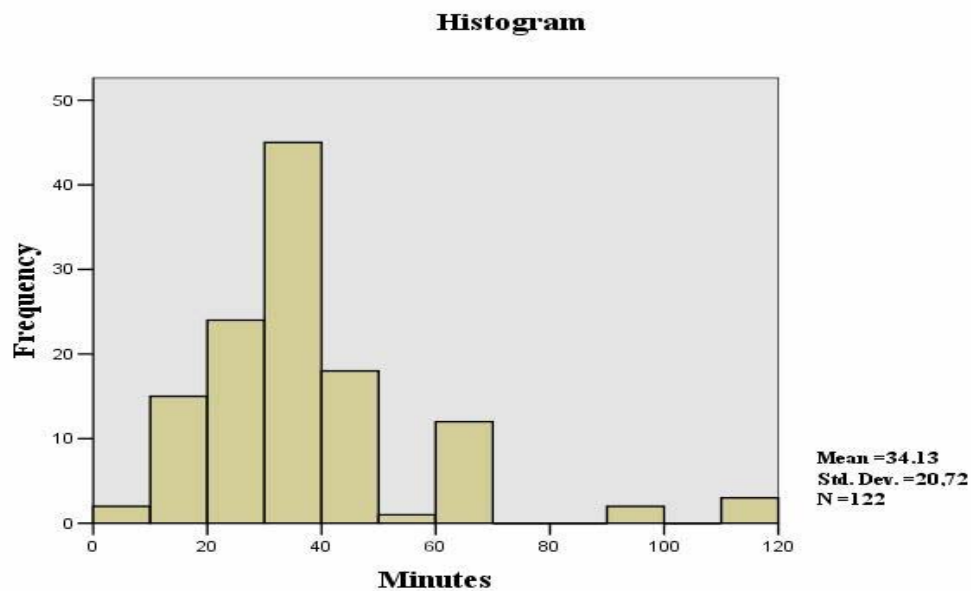


Figure 2. Histogram of the minutes “large property owners” are willing to travel to the closest dealership location.

Research participants were also asked for their comments and suggestions on the improvement of the farm equipment dealerships services. The comments are presented in Table 17.

Table 17

Comments and Suggestions of “Large Property Owners” Toward Improvement of the Farm Equipment Dealership Services

#	Suggestions and comments
1.	A store like Tractor Supply with more feed and equipment.
2.	Ag fuel is difficult to come by. The least expensive way is for us to carry 55 gallon drums in the back of our trucks. We are 20 miles from the distribution center in Waxahachie. Professional delivery is significant cost.
3.	Auto parts and supplies available in dealership.
4.	Better return systems when the store has made an error on the order.
5.	Contain cost!! Both in service and parts.
6.	Dealerships which carry multi brand equipment and parts other than their main brand.
7.	Fair prices, friendly employees, honesty.
8.	Farm supply center.
9.	For the major dealerships to carry some "off brand" parts or interchangeable parts and even if they can't help you, not to be so rude about not owning their brand. Just less rude service would be great and may be give suggestions where to send you to get the service you need.
10.	Have a large inventory of parts.
11.	Have fewer government employees.

Table 17 (continued)

-
12. Having to transport equipment to the dealership for services or repair is a problem. Offer a service where they either come to my property or are willing to come get the equipment and take it to the shop and bring it back when finished. I would be willing to pay for either service if it was offered.
 13. I hate XXXXXX Kubota. It is a rotten dealer. But it's only one around.
 14. I own a small (18 hp) JD tractor for home use (on 5 acres) and very occasional farm use. I buy parts from AG-POWER in McKinney. It will be more convenient for us to buy parts in Wylie but they only service lawnmowers now.
 15. It would be helpful to have a closer dealership/repair shop closer than 25 miles, so that maintenance could be more accessible.
 16. Large parts inventory.
 17. Larger maintenance shops where things can be done when needed without having to wait for appointment in shop waiting for repairs. This takes weeks upon weeks waiting for parts.
 18. Lower parts prices.
 19. More used equipment. The one dealership we have here is very low on customer service. I would also like more variety in a dealership, not just one brand. It would be nice if it was easier to get parts and replacement manuals. And if the hours of business were not like bankers hours.
 20. Number one issue is to have a home improvement i.e. lumber, fence, plumbing supplies, like Home Depot.
 21. Once I know where the dealership is, it's not important if it is visible from highway. I normally buy used equipment if it is available. Offering used equipment would be helpful.
 22. Open later hours and all day Saturdays.
 23. Parts and supplies for "gray-market" tractors should be expanded.

Table 17 (continued)

-
- | | |
|-----|--|
| 24. | Personally, I go to two dealerships now - both are in different cities, Cleburne and Hillsboro. Both dealerships require me to go through both cities to get to the dealership. Very time consuming to get to either dealership when going through the cities. |
| 25. | Proximity to other ag related stores is more likely to promote shopping at an equipment dealer. I usually combine trips to feed store or wal-mart, or grocery stores. |
| 26. | Repair for farm equipment. |
| 27. | Repair is too expensive and in most cases they try to sell you more than you need. |
| 28. | Shorter down time for major repairs. Have product ready 100% of the time as promised to be ready. |
| 29. | Small town - service somewhat slow (repair service). |
| 30. | Stores such as Tractor Supply Store are particular handy as they have great variety appeal to family. |
| 31. | Teach Automotive stores how to sell parts. |
| 32. | The dealership has very limited staff to answer questions or inquires. |
| 33. | Web site is very important. |
-

Relationships Between Variables

Relationships between variables offer additional information to the research findings. So, these relationships were examined and bivariate correlations such as Pearson product moment correlation and Spearman's Rho correlation were employed to observe relationships between age, residence, occupation, years of experience in

agriculture, distance, miles, and minutes “large property owners” are willing to travel to a dealership, and other characteristics of a dealership location in the survey.

The first relationship examined was that of age and residence area, occupation, and years of experience in agriculture, which is presented in Table 18. A statistically significant relationship existed between ages of the “large property owners” and their years of experience in agriculture. The older the individuals indicated they were, the more years of experience in agriculture they had. There was no significant relationship between research participants’ ages and where they reside and what jobs they held.

Table 18

Correlation Coefficients (Spearman’s Rho) of Age and Residence Area, Occupation, Years of Experience in Agriculture 2005

	Residence area	Occupation	Years of experience in agriculture
Age	.058	-.013	0.343**

** . Correlation is significant at the 0.01 level (2-tailed)

One may think there should be a relationship between residence and occupation: Many people living in the country may be occupied in agricultural business and may also have more years of experience in agriculture. But Table 19 shows no statistically significant relationship between these three variables.

Table 19

Correlation Coefficients (Spearman's Rho) of Residence Area, Occupation, Years of Experience in Agriculture 2005

	Occupation	Years of experience in agriculture
Residence area	-.084	.090

There was no significant relationship found between age and distance “large property owner” are willing to travel to a dealership location, how important visible and attractive looking dealership building is, how important accessible location is, whether it matters if a dealership is located in the city or in the country, and whether a dealership is located close to other stores (Table 20).

Table 20

Correlation Coefficients (Spearman's Rho) of Age and Distance, Visibility, Accessibility, Location, Other Stores 2005

	Distance	Visibility	Accessibility	Location	Other stores
Age	-.048	-.089	.070	.078	.002

Table 21 also shows that there was no statistically significant relationship found between the ages of research participants and the miles and minutes they were ready to travel to the closest dealership.

Table 21

Correlation Coefficients (Spearman's Rho) of Age and Miles, Minutes 2005

	Miles	Minutes
Age	-.080	-.057

Suggestions for Dealership Development – Research Objective 3 Summary

Research findings showed very valuable information for the individuals interested in the results. One of the questions of the study was to describe demographics of “large property owners.” It is crucial for any business to know the clients to be able to offer them appropriate service.

The study findings indicate that most (82%) of the examined individuals are above 45 years of age. This information tells us that some of these people have already retired or are looking at retirement. Some of them may be moving closer to the countryside and planning to become small farmers or develop their usage of farm equipment to a broader range. It may also be said that some of these people may be able to afford farming as a leisure or hobby activity. Many of these people are probably very knowledgeable in agriculture; some may not be. This indicates that high educated dealership salespeople, able to deal with different customers and situations, are necessary.

The second important finding is that 72% of all research participants reside in rural areas with fewer than 10,000 people. This means that many of these individuals are either small farmers (since we limited possessed land to 3 – 50 acres per person), or have

to use some agricultural equipment on occasion. People living in rural areas can also be particularly subjected to creating their opinions about a dealership or an equipment manufacturer when talking with their friends and acquaintances. If one attempts to capture the big part of such market, excellent customer service at all times would help tremendously.

Table 3 presents us with the information on the occupations of the research participants. The responses to this question were limited to “farmer,” “other,” and “retired.” Seventy-six percent of the individuals answering the question reported that they had occupations other than farming, 15% were occupied in agriculture, and 8% were retired. This represents the fact that most of these people have different professions but involve themselves with agriculture in their free time. Agriculture may be a hobby for them; or they may be using agricultural equipment for their local around-house construction and recreation purposes. Some of these surveyed people may represent the market segment of interest to us – “large property owners.”

Further, the examined individuals were asked to indicate their experience in agriculture. It was found that ages of the research participants were positively correlated with the years of experience they had. The response frequencies to all of the answer categories were very close. It suggests that some older people started getting familiar with agriculture in their 30s, 40s, and even 50s. Therefore, some of them can also represent “large property owners” who decided to add some elements of farming to their lives for hobbies or vacation time.

Table 5 shows what brands of farm equipment are the most popular among the research participants. John Deere equipment was owned by 30% of all research participants, which is complimentary to the Company, especially since it is very interested in capturing the big part of the large property owner market. Eleven percent is represented by Kubota which is known to offer appropriate range of equipment for small farmers and is given a credit for this. Yet, 35% of the individuals indicated they have other brands of equipment than were named in the survey. This may signify that some of these people prefer other brands, or cheaper prices. More popular manufacturers who offer higher quality products are also known to charge more for the better quality and service.

The study results show that 85 (49%) of the individuals participated in this research buy parts and maintenance from the same dealership they bought their equipment from. The second most popular (69 responses and 40%) place among “large property owners” to buy maintenance at are farm stores. It would be beneficial if a dealership was located at one direction of the city so, that the farm store would be to the other side. Farm stores may also be offered to carry a wider range of supplies for a particular company.

Brand is the most attractive characteristics of an equipment manufacturer and its dealership for the research participants according to the final findings. Working towards maintaining respected name/brand is one of the keys to keep the current customers and capturing attention and interest of the other.

Second part of the research findings showed that surveyed individuals were not very interested in a wider range of equipment presented at one location. They did not indicate that distance to the dealership was a very important matter to them. Visible/easy to spot dealership building is not very important according to the findings. So is dealership building accessibility and a closer location to other useful businesses and shops.

But it should be considered that, from one point of view, distance and location do not matter very much. When a tractor needs extra parts in the middle of the working season, a farmer is not going to pay attention to the rail road crossings on the way to the dealership; he/she is not going to consider how far the location is and how wide a range of equipment there is. Farmer's situation at the moment is very crucial and would not make him/her worried about the above spoken characteristics of a dealership. Nothing will matter to a farmer at this time, as much as getting what is needed to finish the season.

But this problem needs to be looked at from other points of view. Wider range of equipment at one location is going to help "large property owners" to save their valuable time and effort. If one needs lighter and heavier pieces of equipment, it will help tremendously to have both of them in one place. One of the comments in one of the received surveys was exactly about the same problem. The closest and most comfortable dealership represented CCE (gardening equipment) and did not have that particular piece of obviously heavier equipment the individual needed.

Of course distance to the dealership location does not matter when work needs to be accomplished in the limited time frames. But having a closer dealership would save time, gas, and money, which is very important for a farmer.

As long as one uses the same dealership all the time, it is not important if it is visible from the highway, etc. But when looking for a dealership building for the first time, it will make the experience so much more pleasant if one did not have to go rounds and rounds to find the exact place. And, of course, it saves not only from unpleasant experiences but also saves time.

The same points can be applied to dealership location accessibility. Fighting heavy traffic and waiting for train to pass can also be time consuming and very irritating.

Having a dealership located close to grocery stores, home improvement stores, and feed and fertilizer stores can help to create a better impression of the service. Poor and irritating experience of waiting for a service can be recovered by spending time usefully and more pleasant in the nearby store.

Some people, who have been occupied in the same routine for several years, may not be able to see how these changes can benefit them eventually. This is the challenge that equipment manufacturers have to engage in, if they want to attract new customers and maintain already existing ones. Looking for new and better ways to do business and constantly improving customer service are of great importance in our days.

These findings pose another question for John Deere and other farm equipment manufacturers—the question of introducing change into rural society. More studies will have to take place to accomplish the final goal of presenting new and better service.

The research findings and some additional suggestions and recommendations offer a direction for further research and ideas for improving dealerships. These research findings combined with other and future studies should be organized into some kind of educational system and introduced to the existing and new dealerships at the dealership development educational sessions. The farm equipment companies should teach their dealers how to treat this new rapidly emerging market and monitor their dealers' customer service.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Chapter V presents a summary of the study, conclusions illustrated by the major findings, implications of those results, and recommendations for future research or other actions.

Summary

Markets for farm equipment manufacturers have changed in the past decades. Many new technologies available for the public, like cell phones, Internet, wireless connections, and satellite, enable people move to the country and still stay connected with their businesses in the city. These business people want to enjoy what nature offers humanity, and they can afford being small farmers as a hobby. But they have very different goals than commercial farmers.

Farm equipment manufacturers, including John Deere Company, are interested in capturing a significant part of this market. To do that, one has to learn what small farmers, or “large property owners,” want and need and offer appropriate services. Dealerships, representing these companies, have great responsibility in helping attract new customers and offering exceptional customer service. This study suggests that John Deere Company continues to study the market of “large property owners” and teach their existing and new dealerships to offer appropriate services to help satisfy the new market segment.

This research sought to accomplish three objectives in helping John Deere to study “large property owners” and how to satisfy them. The objectives were:

- 1) To describe demographics of “large property owner.”
- 2) To describe “large property owners” needs and wants for the farm equipment dealerships.
- 3) To make suggestions for existing or new dealerships development (at any location) to suit needs of “large property owners.”

Ultimate goals of this study included:

- 1) To help develop a better understanding of “large property owners” market by John Deere Dallas branch.
 - 2) Provide guidelines for the Company for an educational program for dealership development sessions.
 - 3) Assist in overall effort to understand a new and growing market and how to attract it.
- The target population was “large property owners.”
 - The accessible population consisted of “large property owners” of six selected counties in the Dallas/Fort Worth metroplex.
 - The sample was 1,000 “large property owners” who were randomly selected from county tax rolls with the help of a real estate agent.
 - The questionnaire consisted of three pages and ten questions.

- A questionnaire, cover letter, informed consent, and a paid reply envelope were sent to each research participant. The research was anonymous; therefore, follow-up studies were not possible.
- Data from 174 individuals were entered into Excel spreadsheet.
- Data were analyzed with descriptive (frequency, percentage, means, etc.) and inferential statistics (correlation coefficients).

Conclusions

Objective 1 was to describe the demographics of “large property owners” in six selected counties of the Dallas/Fort Worth metroplex. The list of major findings follows below:

Demographics

- 82% of the “large property owners” who participated in the research are above 45 years of age.
- 72% of the “large property owners” reside in rural areas with populations below 10,000.
- 76% of research participants indicated that their primary occupation was not farming, and only 15% were farmers.
- Years of experience or interest in agriculture/farming that the study participants had were evenly distributed among all of the response categories.

- 31% of the potential small farmers indicated that they had John Deere equipment, while 35% indicated they had equipment of other, not specified in the survey, brands.

Objective 2 was to describe needs and wants of “large property owners” for farm equipment dealerships. The list of the major findings follows below:

- 49% of the research participants buy necessary parts and maintenance at the same dealership at which they purchased their equipment.
- 36% of the “large property owners” chose to buy their equipment for brand.
- Only 29% of the individuals indicated that they wanted to see a wider range of farm equipment presented at one location.
- Only 11% indicated that the distance they have to travel to the closest dealership was an important factor for them.
- 25% percent of the potential small farmers thought that it was important for a dealership building location to be visible (easy to spot).
- 18% decided that having an easily accessible dealership (rail road crossings, complex road intersections, etc.) was important to them.
- 39% would prefer that a dealership be located in the country.
- 36% of the research participants indicated that they did not care to use a dealership which was located close to other useful shops or businesses, 36% indicated they would prefer to have other stores around the dealership they use.

- 51% wanted to have home improvement stores located close to the dealership they use.
- Overall, the analysis showed that a dealership located in the country, distance to the closest location, and dealership accessibility were the most important categories to the small farmers.
- On average, “large property owners” are willing to travel up to 25 miles and up to 34 minutes to the closest dealership location.
- As expected, positive correlations existed between ages of the research participants and their years of experience in agriculture.

Implications

As written in Chapter IV, some of the findings may be argued. Some individuals, embraced in their everyday routine for many years, may not be able to see how some changes in the farm equipment dealership could benefit them. This question can be looked at from two perspectives. First is when one needs a part, a piece of equipment, etc, in the middle of the “busy” season. Nothing matters as long as the job gets accomplished at the end of the day. Another perspective is when everyday work is ongoing. Is it more convenient to have a dealership in an easy accessible location, close to the grocery store or home improvement store? Would it save time, effort, and money? This may be hard to see at once. But after thinking about it a little, one will come to the conclusion that a little bit can save a lot of time and money--and also be more convenient and provide customers with a pleasant experience.

Recommendations

Recommendations for Practice

- The suggestions of “large property owners” presented in Table 19 should be carefully studied and considered in the new program for dealership development events.
- Educational programs such as field days, lectures, short courses, and other indoor and outdoor activities can be held to attract small farmers and provide them more educational opportunities. John Deere Company can partner with Texas Cooperative Extension to support mentioned events.
- John Deere Company should hold regular dealership development educational sessions for their dealers and help salespeople, representing the Company, to develop their skills and qualities to perfection.
- John Deere Company may also consider some innovative approaches in the dealership development after studying suggestions and inquires of the research participants.
- Opportunity of presenting a new magazine/journal for “large property owners” can be considered to offer more information on the Company’s range of equipment and also offer some educational articles which can be of use to a small farmer.
- The next challenge for John Deere Company after creating new dealerships would be to develop a program of introduction of this change to the farmers. Many of them would oppose it just because it is a change, as is the case with many

innovations. The correct way of handling this situation will insure John Deere's credibility in the eyes of the new and old customers.

- Study the market constantly. Only paying attention to new tendencies, studying opportunities, etc. will ensure the company's presence and dominance in the business of providing equipment to customers.

Recommendations for Further Research

- John Deere Company should study the demographics of "large property owners" on a wider scale and in different parts of the country.
- New and more reliable sources of research participants' names should be found as county tax rolls may not always be up-to-date or do not always contain zoning that would indicate "commercial, residential, or agricultural," for example.
- A more detailed survey will help to understand the emergence of the new kind of customers and what they expect better.
- John Deere Company should try to reach as many "large property owners" as possible and demonstrate interest and willingness to satisfy every need.
- A study to determine the approximate levels of innovativeness of "large property owners" should take place.

A study to establish a program for the introduction of a new kind of dealerships to the market should also be considered.

REFERENCES

- Berardi, G. V., & Geisler, C. C. (1984). *The social consequences and challenges of new agricultural technologies*. Boulder, CO: Westview Press.
- Borg, W. R., & Gall, M. D. (1989). *Educational research: An introduction* (5th Ed.). White Plains, NY: Longman.
- Dillman, D. A. (1978). *Mail and telephone surveys: The total design method*. New York: John Wiley & Sons.
- Dillman, D. A., & Salant, P. (1994). *How to conduct your own survey*. New York: John Wiley & Sons, Inc.
- Doane, D. S., & Sloat, R. D. (2005). *The customer service activity book: 50 activities for inspiring exceptional service*. New York: ANACOM.
- Dunckel, J., & Taylor, B. (1988). *The business guide to profitable customer relations: Today's techniques for success*. Vancouver, Canada: Self-Counsel Press.
- Eilers, D. (1999). *Bush hog's cutting edge strategies*. Retrieved April 5, 2005, from HighBeam Research Web site: <http://www.highbeam.com/library/doc0.asp?DOCID=1G1:54588832&num=1&ctrlInfo=Round16%3AMode16a0%3ASR%3AResult&ao=&FreePremium=PREMIUM>
- Erickson, K. (2004). *Small acreages are potential big business for agrimarketers*. Retrieved March 25, 2005, from HighBeam Research Web site: <http://www.highbeam.com/library/doc0.asp?DOCID=1G1:114519905&num=1&ctrlInfo=Round16%3AMode16a0%3ASR%3AResult&ao=&FreePremium=PREMIUM>
- Gross, S. T. (2005). *When customers talk: ...Turn what they tell you into sales*. Chicago, IL: Dearborn Trade Publishing.
- Gupta, G. (1999). *A practical guide to needs assessment*. San Francisco, CA: Jossey-Bass Pfeiffer.
- John Deere Company. (n.d.). *Strategic long-term small tractor growth project*. Unpublished manuscript. Dallas, TX: John Deere Company.
- McKillip, J., & Pitz, G. (1984). *Decision analysis for program evaluators*. Beverly Hills, CA: Sage Publications.

- Nation in brief*. (2000). Retrieved December 27, 2005, from HighBeam Research Web site: <http://www.highbeam.com/library/doc0.asp?DOCID=1P1:25438761&num=1&ctrlInfo=Round16%3AMode16a0%3ASR%3AResult&ao=&FreePremium=PREMIUM>
- Orlich, D. C. (1978). *Designing sensible surveys*. New York: Redgrave Publishing Company.
- Orlich, D. E. (1989). *Staff development: Enhancing human potential*. Boston, MA: Allyn & Bacon.
- Phillips, J. J., & Holton, E. F., III. (1995). *Conducting needs assessment*. Alexandria, VA: American Society for Training and Development.
- Webster, F. E. (1994). *Market-driven management: Using the new marketing concept to create customer oriented company*. New York: John Wiley and Sons, Inc.
- Statistical Package for the Social Sciences. (2005). *SPSS 13.0 for Windows^R and SmartViewerTM* [Computer Software]. Chicago, IL: SPSS, Inc.
- United States Department of Agriculture. (1992). *1992 Census of agriculture: Agricultural atlas of the United States, maps index page*. Retrieved September 7, 2005, from the United States Department of Agriculture web site: <http://www.nass.usda.gov/census/census92/atlas92/html/index.htm>
- United States Department of Agriculture. (1997). *1997 Census of agriculture: Agricultural atlas, maps index page*. Retrieved September 7, 2005, from the United States Department of Agriculture web site: <http://www.nass.usda.gov/census/census97/atlas97/index.htm>
- United States Department of Agriculture. (2002). *2002 Census of agriculture: U.S. agricultural atlas maps*. Retrieved September 7, 2005, from the United States Department of Agriculture web site: <http://www.nass.usda.gov/research/atlas02/>
- Yengst, C. R. (2000). *If the farm economy stinks, why are tractor sales higher?* Retrieved March 25, 2005, from HighBeam Research Web site: <http://www.highbeam.com/library/docfree.asp?DOCID=1G1:69860749&num=1&ctrlInfo=Round16%3AMode16a0%3ASR%3AResult&ao=&FreePremium=FREE>

APPENDIX A

CONSENT FORM

I have been asked to participate in a research study “Dealership development for small farmers.” I was selected to be a possible participant because I possess land of 3 to 50 acres in Dallas/Fort Worth metroplex. A total of 1,000 people have been asked to participate in this study. The purpose of this study is 1) define and describe “large property owner”, 2) analyze dealership needs of the new customers, 3) recognize a pattern for new dealership development (at any location) to suit needs of the new customers.

If I agree to be in this study, I will be asked to fill out a questionnaire and mail it back to the researcher in the provided paid envelope. This study will only take filling out 1 questionnaire and mailing it back once. There are no risks associated with this study. The benefits of participation are new agricultural machinery dealerships created considering my needs and wishes to help improve my business and flexibility. I will receive no monetary compensation.

This study is anonymous. The return envelopes will not have my name or address. The participants’ lists will be kept secure and will be destroyed upon the study completion. The records of this study will be kept private. No identifiers linking me to the study will be included in any sort of report that might be published. Research records will be stored securely and only Maria Pospeshnova and Gary Briers will have access to the records. My decision whether of not to participate will not affect my current or future relations with Texas A&M University. If I decide to participate, I am free to refuse to answer any of the questions that may make me uncomfortable. I can withdraw at any time with out my relations with the university, job, benefits, etc., being affected. I can contact Maria Pospeshnova (researcher) at 972-442-1517 or via E-mail at masha238@mail.ru or Gary Briers (advisor) at 979-862-3000 or via E-mail at g-briers@tam.edu with any questions about this study.

This research study has been reviewed by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects’ rights, I can contact the Institutional Review Board through Angelia M. Raines, Director of Research Compliance, Office of Vice President for Research at (979) 458-4067 (araines@uprmail.tamu.edu).

I have read the above information. I have asked questions and have received answers to my satisfaction. I have been given a copy of this consent document for my records. By signing this document, I consent to participate in the study.



Dealership development for small farmers.

Dear partners and friends:

Texas A&M University seeks your help regarding creation of a new kind of small farm agricultural dealership for your convenience. Your common efforts will help us create a concept of a stronger and more available service, extend dealership product line in each location, and help satisfy customer needs. We estimated it would take you 5 minutes to complete this survey.

In 2000, USDA said that the number of farms in the USA has grown to 2,194,070 covering almost 950 million acres, up for the third year in a row because of the growing number – 15,690 more – of small acreage farms. With the new market growing so rapidly, agricultural equipment customers are wide and varied including: commercial and family farms, nurseries, governments, municipalities, golf and sports turf venues, construction firms, landscapers, residential property owners, estate owners, and commercial non-farm enterprises.

We are looking to gather information to provide excellent quality services for you by adapting the dealerships, the range of equipment they present, and their locations. To better serve our customers we want to ask you how your farm equipment dealership may benefit you more.

Please give us 5 minutes of your time by filling out the following survey and returning it **BY SEPTEMBER, 30**. Envelopes with the stamps are provided in the package you received. If you have any question, feel free to contact:

- Gary Briers – Texas A&M University, professor and research advisor, Department of Agricultural Education at 979-862-3000 or via E-mail at g-briers@tamu.edu
- Maria Pospeshnova – Texas A&M University, graduate student, Department of Agricultural Education at 972-442-1517 or via E-mail at masha238@mail.ru

Thank you in advance for your time and support!

Sincerely,

APPENDIX B

1. Mark the range below that describes your age.
 - Below 25
 - 25-35
 - 35-45
 - 45-55
 - 55-65
 - above 65
2. Which of the following describes the area, town, or city in which you currently reside?
 1. rural area
 2. town under 10,000
 3. town of 10,000 – 24, 999
 4. large town, or city, of 25,000 – 99,000
 5. city or metropolitan area of 100,000 – 499,999
 6. city or metropolitan area of 500, 000 or more
3. What is your current occupation?
 - a. Farmer
 - b. Other
4. How many years have you been a farmer, interested in agriculture, or using agricultural equipment?
 - Below 5
 - 5-15
 - 15-25
 - 25-35
 - 35-45
 - above 45
5. What is the brand/make of tractor are you using now? (If you have several items, indicate please which brand dominates)
 - Kubota
 - John Deere
 - Case/IH
 - Mahindra
 - Other_____
6. Where do you buy parts/maintenance for equipment?
 - Dealership where you purchase your equipment
 - Another dealership
 - Farm store
 - Automotive store

7. What attracted you to the current place you purchase your equipment?

- Brand
- Location
- Service quality
- Close parts store
- Other

8. How important for you is a wider range of equipment offered at one location (heavy duty agricultural combined with light duty gardening equipment)?

very important not necessarily
 1 2 3 4 5

9. How important for you are the following characteristics of a dealership?

- distance you need to travel to the closest dealership

very important very unimportant
 1 2 3 4 5

- How far are you willing to travel to the closest dealership location (in miles)

(in minutes)

- visibility of a dealership building/location on a site (easy to spot)

very important very unimportant
 1 2 3 4 5

- easy to get to (train crossings, complex road systems, etc.)

very important very unimportant
 1 2 3 4 5

- close to downtown of the nearest city or more in the country

downtown country
 1 2 3 4 5

- other important/useful sites (shopping areas)

very important very unimportant
 1 2 3 4 5

- What other businesses would be more helpful to have around dealership location?

1. Wal-Mart
2. Home improvement stores
3. Automobile repair shops
4. Feed/seed/fertilizer sales

10. Please take your time to write down few suggestions for us how to improve our services to satisfy YOUR needs.

We appreciate your time and effort to help us! Please return this by August, 20.

Have a great day!

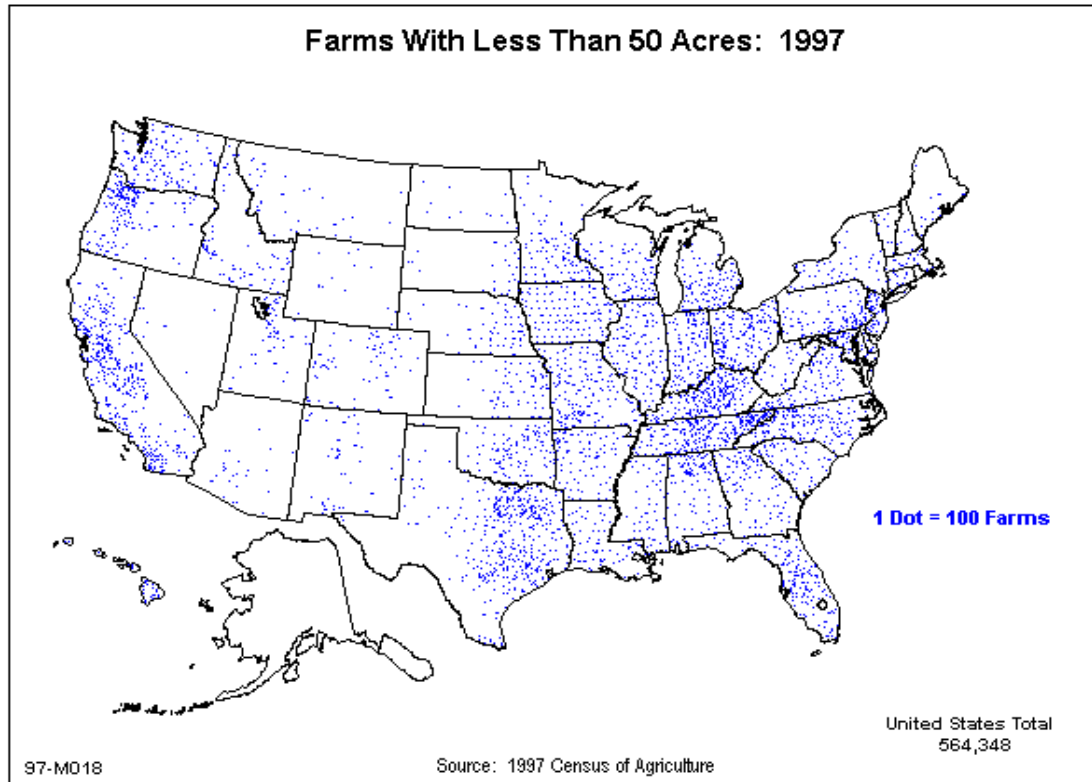
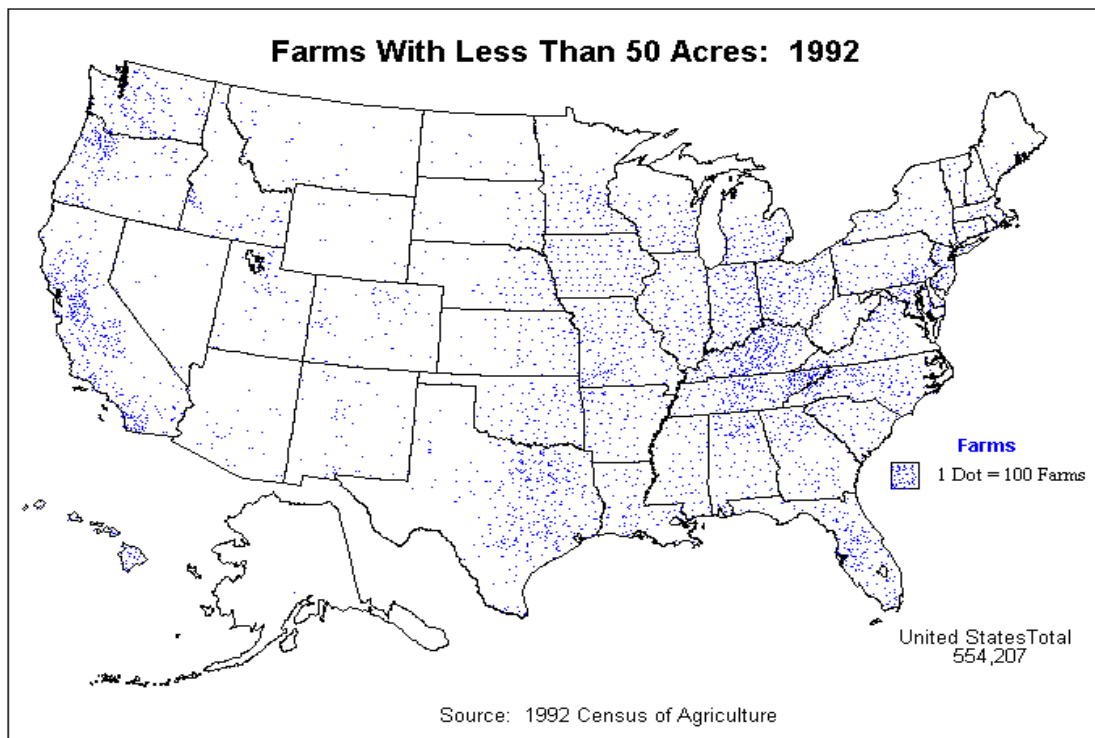
Sincerely,

Department of Ag Education
Texas A&M University

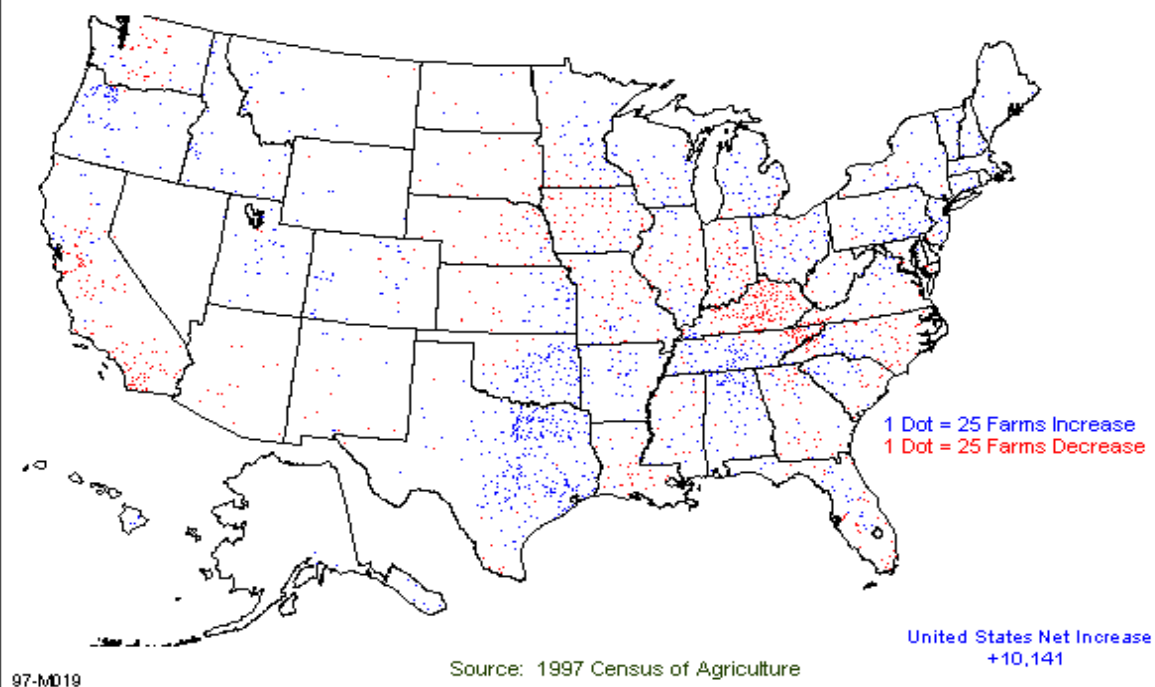
APPENDIX C

AGRICULTURAL CENSUS 1992-1997

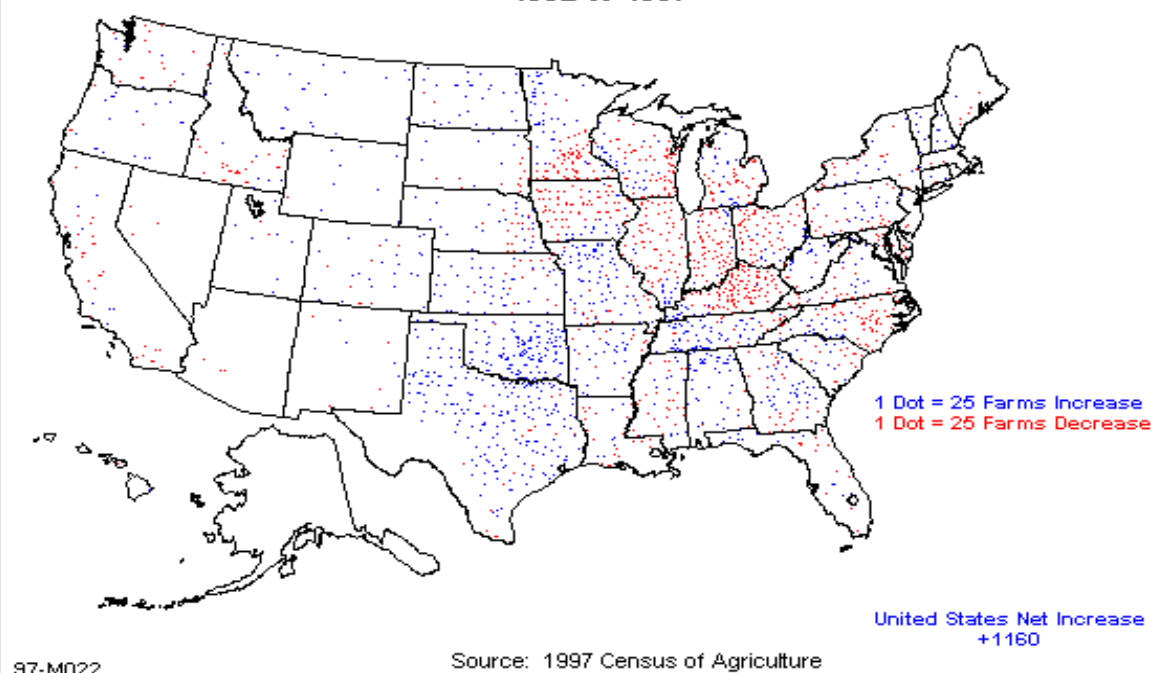
(United States Department of Agriculture, 1992, 1997)

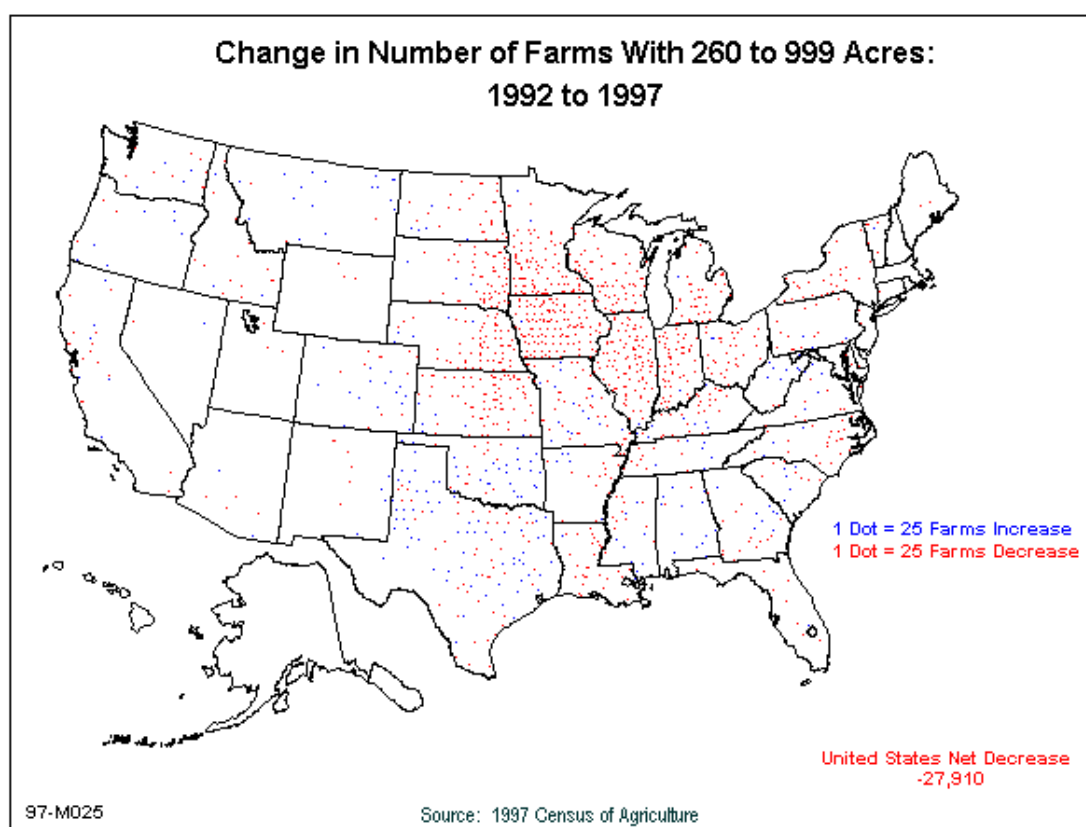


Change in Number of Farms With Less Than 50 Acres: 1992 to 1997

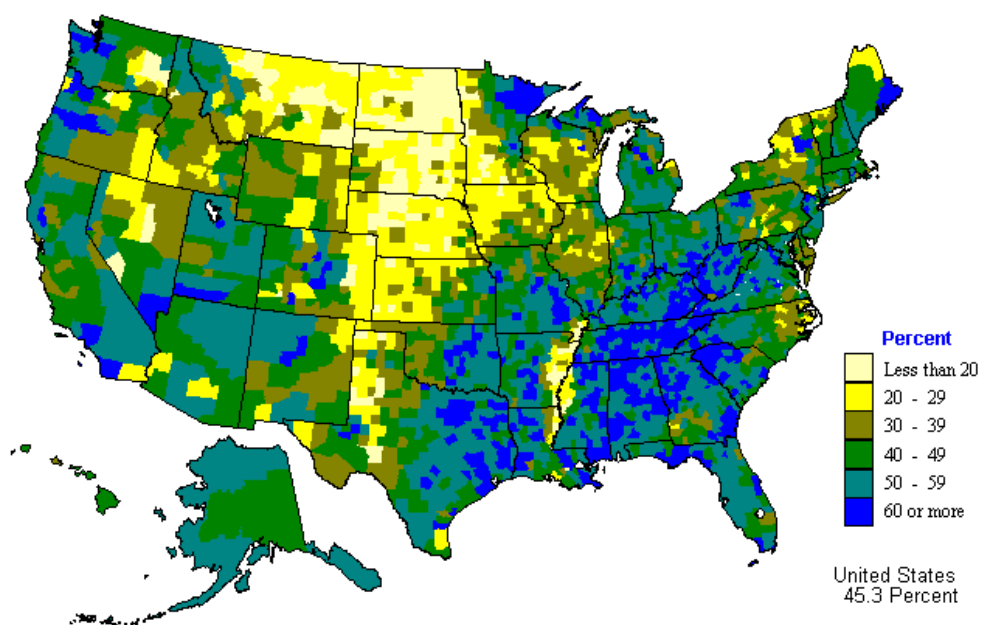


Change in Number of Farms With 50 to 259 Acres: 1992 to 1997



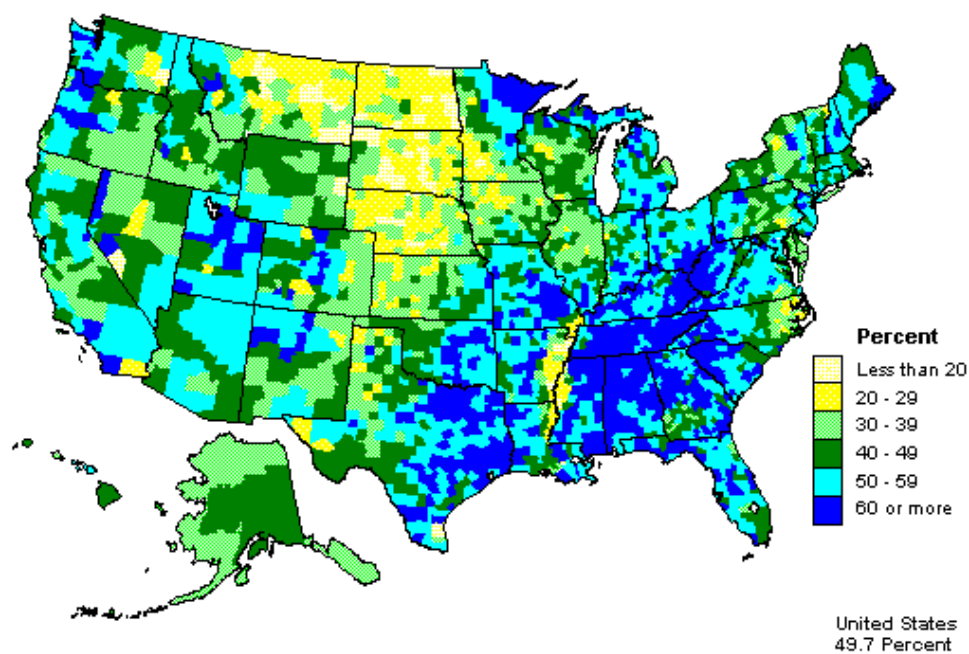


**Percent of Farm Operators Reporting Principal Occupation
as Other Than Farming: 1992**



Source: 1992 Census of Agriculture

**Percent of Farm Operators Reporting Principal
Occupation as Other Than Farming: 1997**

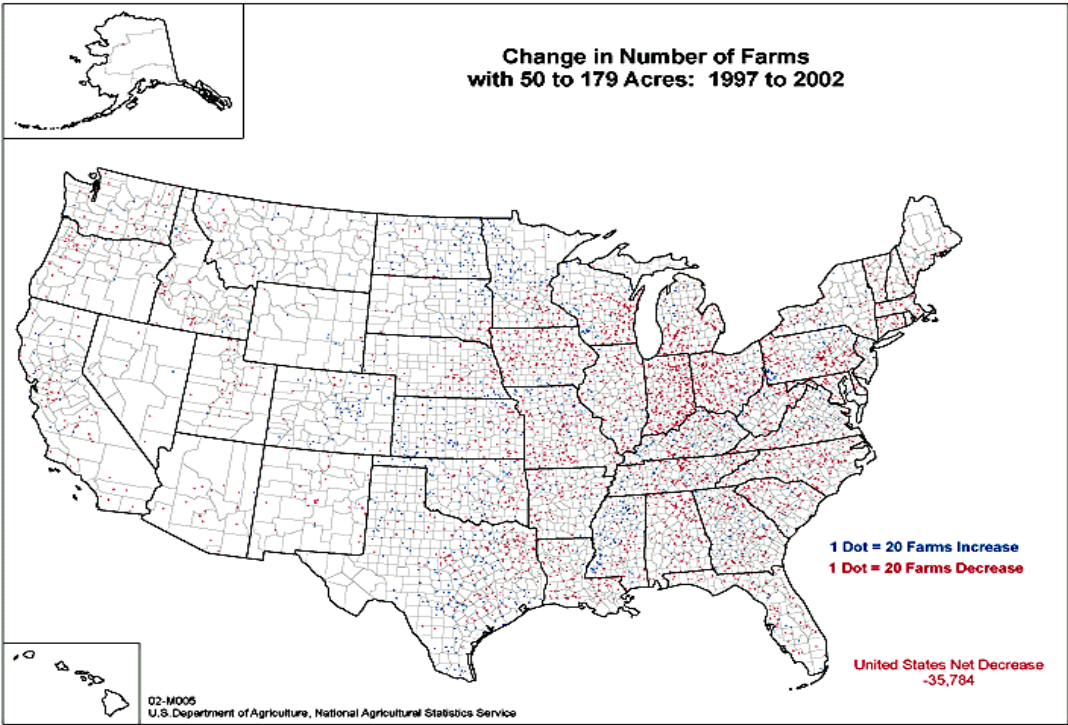
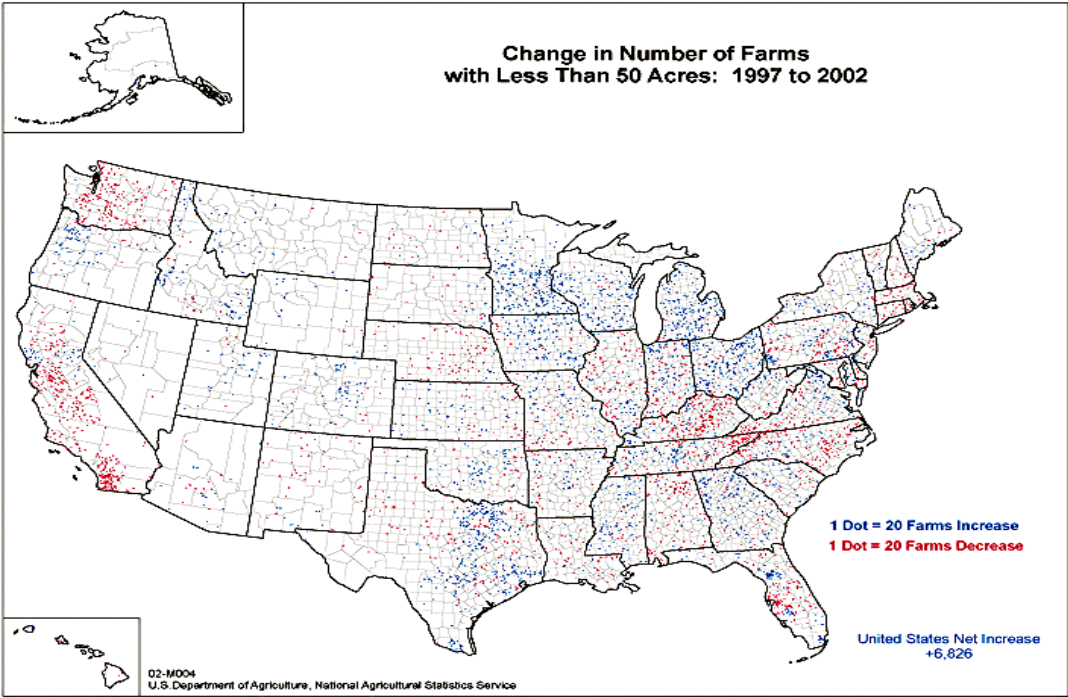


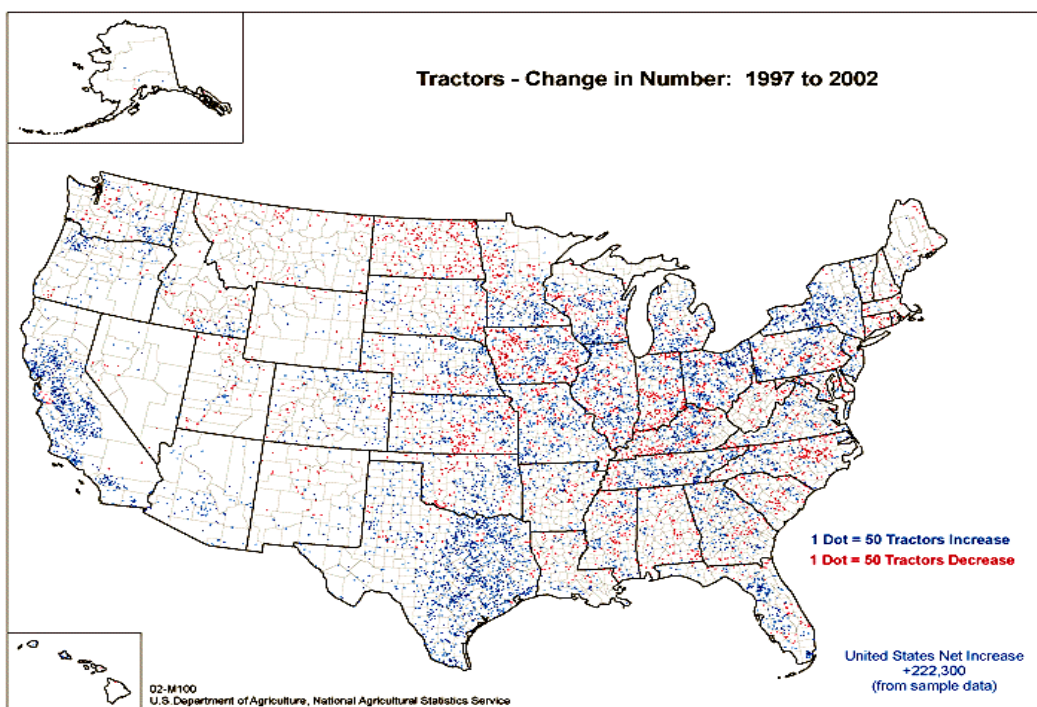
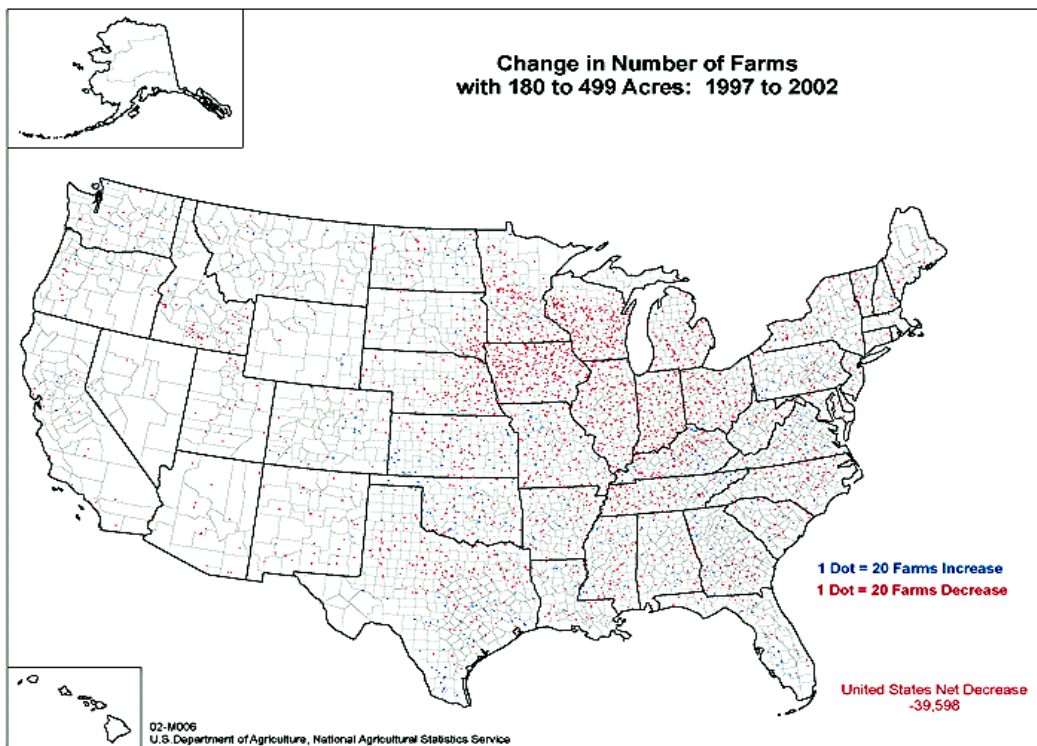
97-M171

Source: 1997 Census of Agriculture

APPENDIX D

AGRICULTURAL CENSUS 2002
(United States Department of Agriculture, 2002)





VITA

Candidate: Maria Alexandrovna Pospeshnova

Permanent mailing address: 111 Morrow Lane, Lavon, TX, 75166

Education: M.S. in Agricultural Education from Texas A&M University, December 2005.

Special accreditation referred in Russia as Engineer - Specialist from Moscow State Agroengineering University named after V. P. Goryachkin (Russia), 2003. The major is in Agricultural Engineering, Communication (Teaching), and English Technical Translation.

Additional accreditation and a team leader for collaborative educational program among 5 US Colleges and Moscow State Agroengineering University, 2001.

Professional Experience: Personal assistant of the branch head and marketing representative of John Deere Agricultural Holdings, Inc. August - December 2003

Guest-speaker at the educational session of Prudential Financial in Dallas, August 2002. The topic was "Property Acquisition in Russia".

Official translator for Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance (ACDI/VOCA), November 2001.

Vice-President, President for International Association of Agricultural Students in Russia, October 2000 – 2002.

Translator/hostess for American executives of John Deere Company in Russia, October 2000.

Assistant in organizing International conferences at Moscow State Agroengineering University, 1998 – 2001.

Interpreter, Administrative Representative in Russia, volunteer for VIM Team for DAR-GIFT Foundation, July, 1995 – present

